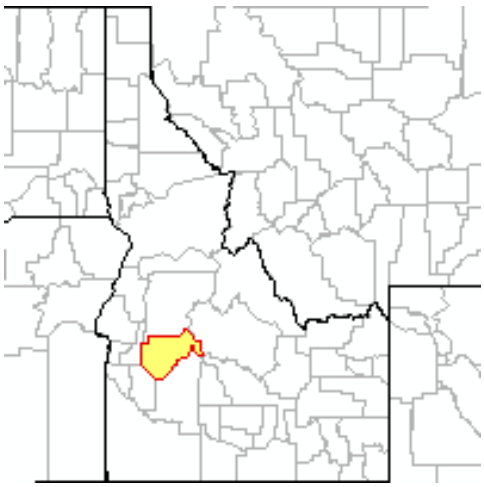
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Alder Flea Beetle** (*Macrohaltica ambiens*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Alder Spp.
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	11 - 100
Location / Affected Area:	Boise County, Idaho

In the Intermountain Region, heavy alder defoliation attributed to alder flea beetle was observed along riparian areas near Idaho City, ID.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Boise County	Yes

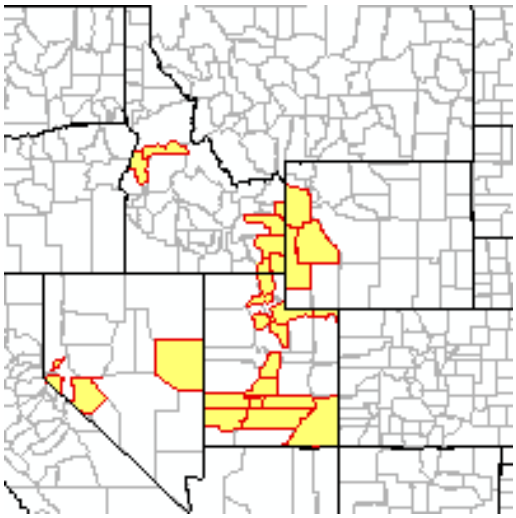


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Armillaria Root Disease** (*Armillaria spp.*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Douglas-Fir, Engelmann Spruce, Grand Fir, Great Basin Bristlecone Pine, Jeffrey Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, Sugar Pine, Western White Pine, Whitebark Pine
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	10,001 - 100,000
Location / Affected Area:	Throughout the Intermountain Region.

Evidence of Armillaria root disease can be found throughout the Intermountain Region. However, the fungus functions primarily as a weak pathogen or saprophyte in most locations causing minor amounts of tree mortality. In Utah, it may act as a primary pathogen killing mature and immature lodgepole pine and mature fir and spruce on cool, moist, high-elevation sites.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Bear Lake County	Yes
ID - Bonneville County	Yes
ID - Caribou County	Yes
ID - Franklin County	Yes
ID - Idaho County	Yes
ID - Teton County	Yes
NV - Douglas County	Yes
NV - Mineral County	Yes
NV - Storey County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Piute County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Lincoln County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes

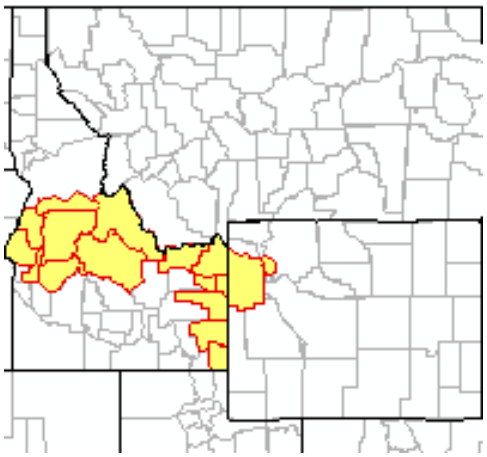


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Balsam Woolly Adelgid** (*Adelges piceae*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Grand Fir, Subalpine Fir
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	This insect has been identified on all subalpine fir forested lands north of Interstate 84 in Idaho.

In 2014, balsam woolly adelgid (BWA)-caused mortality of grand and subalpine fir decreased to nearly 4,000 acres from over 15,000 acres reported in 2013. Since 2010 in the Intermountain Region, a BWA aerial signature has been used to report affected trees. BWA has been aerially identified on all forested ownerships in southern Idaho and now in western Wyoming but the full extent of this introduced insect has not been determined. Ground verification has been completed for some of the new 2013 locations in Idaho. New 2014 locations of BWA in Idaho and Wyoming have not been ground verified. Signature identification and survey results are improving with experience and ground verification of mapped signatures. In the future, aerial survey detection will be used as a monitoring tool to record areas affected by BWA.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Bear Lake County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Caribou County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
WY - Park County	Yes
WY - Teton County	Yes

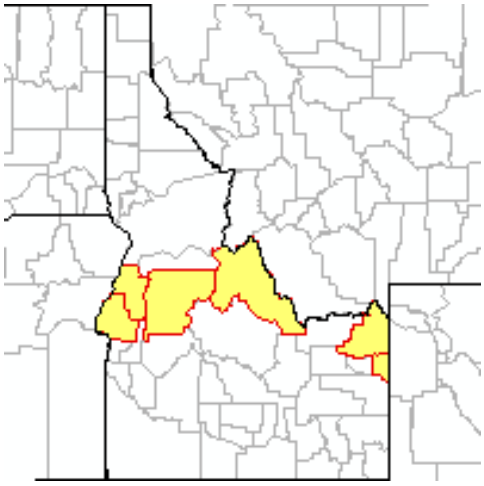


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Balsam Woolly Adelgid** (*Adelges piceae*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Grand Fir, Subalpine Fir
Survey Method(s):	Ground Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	> 1,000,000
Location / Affected Area:	This insect has been identified on all subalpine fir forested lands north of Interstate 84 in Idaho.

In the Intermountain Region, the presence of this non-native forest insect was verified in southern Idaho in 2001. Since then, ground delimitation surveys determined the distribution of balsam woolly adelgid (BWA) is south of the Salmon River affecting most of southern Idaho's forests moving into western Wyoming. Mortality, especially in riparian areas, has increased from the initial survey. Forest Health Protection staff has remeasured the long-term impact plots established in 2008 in southern Idaho National Forests to describe stand changes attributable to BWA over five years. Further surveys by IDL and FHP staffs will document changing impacts in the Intermountain Region. A western risk model for BWA is currently being developed using data from the long-term plots. Additionally, a study evaluating impacts in riparian areas of the Northwest is underway.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Fremont County	Yes
ID - Lemhi County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
ID - Washington County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Cytospora Canker of Fir** (*Cytospora abietis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Fir Spp.
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Humboldt-Toiyabe National Forest in California.

In the Intermountain Region, one pocket of Cytospora canker on fir was mapped. This pathogen often infects tree branches already affected by dwarf mistletoe. Branch flagging is the most visible symptom. In Idaho, mortality attributed to this canker is included in the subalpine fir decline complex, and is common.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Nevada County	Yes
CA - Sierra County	Yes

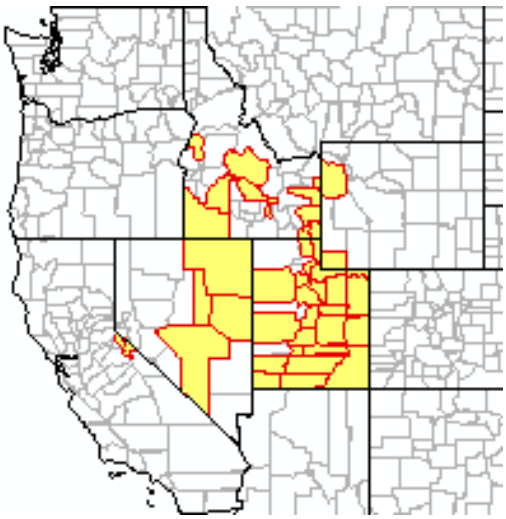
Forest Pest Event Report - Intermountain Region

Damage Agent:	Decline Complex
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Quaking Aspen
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout the Intermountain Region in host type.

Aspen dieback/decline mapped by aerial detection survey increased to 33,000 acres; yet remained at relatively low levels compared to the peak in aspen dieback/decline recorded in 2007. In 2014, aspen dieback/decline greater than 1,000 acres was detected on nearly all of the Utah National Forests (NF) and State land; Humboldt-Toiyabe NF in Nevada; and private lands in Idaho, Utah, and Wyoming. Aspen dieback/decline has been attributed to a complex of agents including drought, grazing, poplar borer (Saperda calcarata), bronze poplar borer (Agrilus liragus), Cytospora canker (Valsa sordida) and sooty bark canker (Encoelia pruinosa). The insect borers and Cytospora canker disease agents are commonly considered secondary pests. Sooty bark canker is usually considered a disease of older stands. In recent years, aspen bark beetles (Trypophloeus populi and Procryphalus mucronatus) have been associated with damage. Aspen bark beetles are now common in many Utah stands with dieback and decline symptoms. Field observations indicate that Trypophloeus attack trees that still have a large component of living bark tissue, while Procryphalus is found in trees in which the bark tissue is almost entirely dead. Aspen mortality caused by bark beetles, borers, and canker diseases increased as a result of significant drought periods during the last decade. Collectively, this suite of damaging agents is associated with stressed, particularly drought stressed, older aspen with high rates of mortality and regeneration damage from grazing pressure. In most of the Intermountain Region aspen stands have at least some suckering and do not have the symptoms of sudden aspen decline reported in other Regions.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	Yes
CA - Mono County	Yes
ID - Adams County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Bonneville County	Yes
ID - Caribou County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Owyhee County	Yes
ID - Teton County	Yes
NV - Elko County	Yes
NV - Eureka County	Yes
NV - Nye County	Yes
NV - White Pine County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes



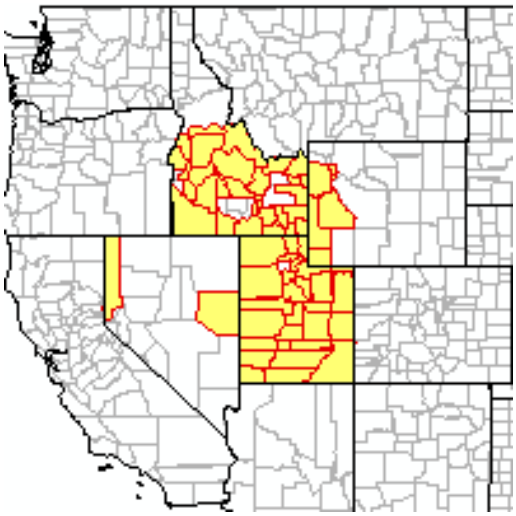
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Douglas-fir Beetle** (*Dendroctonus pseudotsugae*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Douglas-Fir
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	In host type throughout the Intermountain Region

In the Intermountain Region, Douglas-fir beetle (DFB)-caused tree mortality increased slightly in 2014, occurring in scattered, localized pockets. Douglas-fir mortality increased on all ownerships in Utah especially on the Manti-LaSal National Forest. DFB-caused mortality on remainder of the Intermountain Region stayed the same or decreased. In Idaho, there are still concerns that DFB-caused mortality may have been underestimated during the 2014 surveys because 1) ground observations noted that current attacked Douglas-fir faded quickly then dropped their needles due to the hot, dry year; 2) the mortality signature was indistinguishable due to multiple years of budworm defoliation which resulted in minimal foliage to provide the aerial mortality signature; and 3) smoke from the 2014 large wildfires obscured faint signatures. While all are contributing factors to decreased recorded Douglas-fir mortality, general consensus is that mortality in Idaho is underrepresented for 2014.

Douglas-fir beetle-caused mortality is expected to be similar in 2015 due to continued drought and western spruce budworm defoliation causing tree stress. Douglas-fir is an important component of transitional, mixed forests in the Intermountain Region. Continued loss of mature Douglas-fir due to the combined effects of western spruce budworm, Douglas-fir beetle-caused mortality and fire could reduce biodiversity and thus adversely impact many important resource values including wildlife, hydrology and timber. The loss of seed trees and advanced regeneration might also prohibit the successful restoration of stands suffering the greatest damage. This presents a concern for the long-term sustainability of Douglas-fir, particularly in stands where regeneration is scarce or where the large tree component is important. The accumulation of fuels resulting from Douglas-fir mortality and the general deterioration of mixed forests due to insects and diseases will likely increase the likelihood of wildfire intensity and severity.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Sierra County	Yes
CO - Montrose County	Yes
ID - Ada County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes



ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Douglas-fir Tussock Moth** (*Orgyia pseudotsugata*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	
Survey Method(s):	
Setting(s):	Not Applicable
Damage No Longer Observed:	True
Acres Affected:	0 - 10
Location / Affected Area:	No damage mapped in the Intermountain Region.

No Douglas-fir tussock moth (DFTM) damage was aerially mapped in the Intermountain Region in 2014. Trap catches in Blaine County, Idaho on lands administered by the Idaho Department of Lands exceeded 25 moths per trap which may indicate a building population but no visible defoliation was observed. Continued DFTM egg mass sampling and larval is planned for 2015.

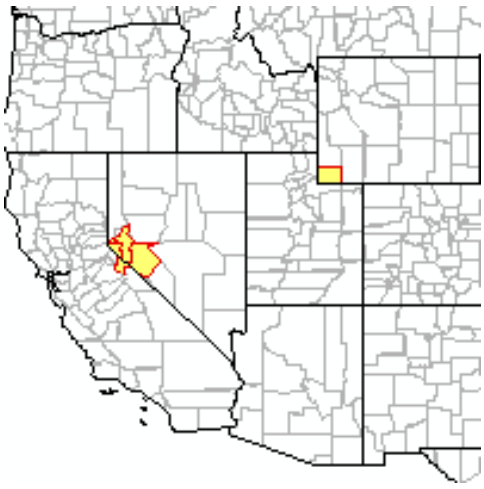
Counties or Equivalents	Causing Damage (Yes/No)

Forest Pest Event Report - Intermountain Region

Damage Agent:	Drought
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Quaking Aspen, Singleleaf Pinyon, Western Juniper
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Eastern California, Nevada and western Wyoming.

Throughout the Intermountain Region drought-related impacts can influence insect and disease activity. Drought-related damage was mapped in piñon pine and juniper in California and Nevada and in quaking aspen in Wyoming.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Mono County	Yes
NV - Carson City	Yes
NV - Douglas County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
WY - Uinta County	Yes

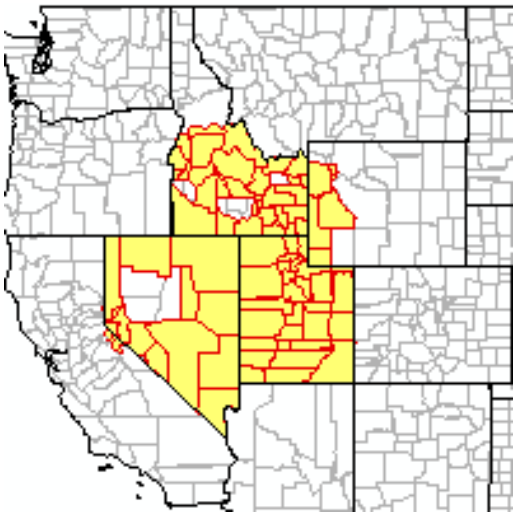


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Dwarf Mistletoe** (*Arceuthobium spp.*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	California Red Fir, Douglas-Fir, Grand Fir, Great Basin Bristlecone Pine, Jeffrey Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Subalpine Fir, Sugar Pine, Western Larch, Western White Pine, White Fir, Whitebark Pine
Survey Method(s):	Ground Survey
Setting(s):	Rural Forest, Urban
Damage No Longer Observed:	False
Acres Affected:	> 1,000,000
Location / Affected Area:	Throughout the Intermountain Region.

Dwarf mistletoes remain the most widespread and frequently observed disease within the Intermountain Region and in some stands tree growth is stunted and over time, tree dieback and mortality occurs. Dwarf mistletoe incidence is updated using data gathered by the Forest Inventory and Analysis (FIA) group. The 2008 FIA data indicated that one or more dwarf mistletoe species were present at various levels of intensity on 15% of all plots surveyed. Incidence of the more significant dwarf mistletoe species by percent of host type infected within the Intermountain Region is: lodgepole pine 26%, piñon pine 20%, Douglas-fir 14%, limber pine 12%, ponderosa/Jeffrey pine 7%, and whitebark pine 6%. No FIA plots are located in infected Great Basin bristlecone pine stands, but the disease is commonly observed infecting this host in several Intermountain Region locations where limber pine mixes with bristlecone pine. In northern Utah, high instances of lodgepole pine dwarf mistletoe infection is affecting the long-term health and future vegetation of remaining lodgepole stands post mountain pine beetle epidemic.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - El Dorado County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Placer County	Yes
CA - Sierra County	Yes
CA - Tuolumne County	Yes
CO - Mesa County	Yes
CO - Montrose County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Bingham County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes



ID - Payette County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Carson City	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Esmeralda County	Yes
NV - Eureka County	Yes
NV - Humboldt County	Yes
NV - Lincoln County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Storey County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

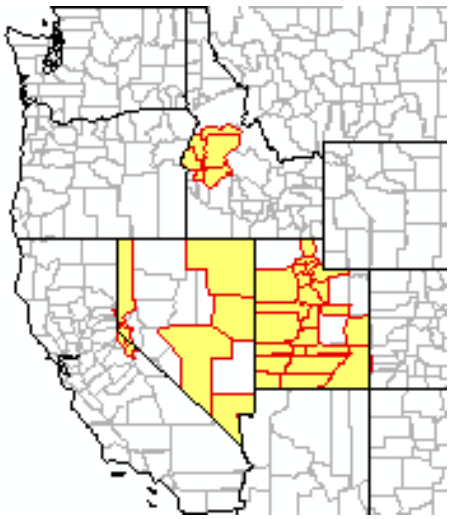
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Fir Engraver** (*Scolytus ventralis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Fir Spp., White Fir
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout fir host type in the Intermountain Region.

In the Intermountain Region, fir engraver beetle-caused fir mortality increased nearly eight-fold in 2014. Most of the fir mortality occurred on National Forest and private lands in Utah and National Forest lands in Nevada. In Utah, tree mortality caused by the fir engraver beetle increased from less than 500 acres in 2013 to over 10,000 acres affected in 2014. Most of the Utah fir mortality occurred on the National Forests (with the exception of the Ashley National Forest) and private lands. Fir mortality increased nearly three-fold in Nevada occurring primarily on the Bridegeport, Carson City and Ely Districts of the Humboldt-Toiyabe National Forest. In southern Idaho, fir engraver beetle-caused mortality increased but remained endemic in 2014. No fir engraver mortality was reported in western Wyoming as host type is not present.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Sierra County	Yes
ID - Adams County	Yes
ID - Boise County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Carson City	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Nye County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Davis County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes

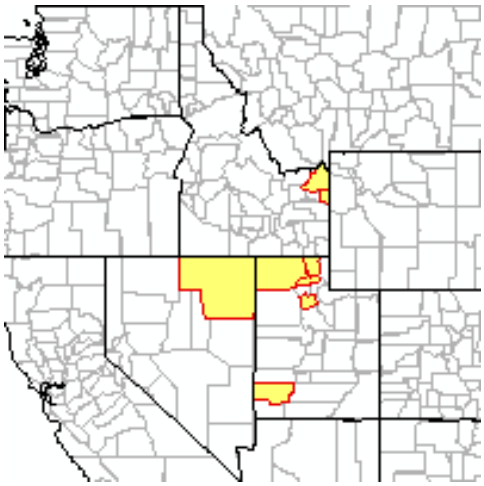


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Forest Tent Caterpillar** (*Malacosoma disstria*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Alder Spp., Bigtooth Maple, Chokecherry, Cottonwood And Poplar Spp., Serviceberry Spp., Willow Spp.
Survey Method(s):	Aerial Survey, General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	101 - 1,000
Location / Affected Area:	Northeastern Nevada, Utah and western Idaho.

In 2014, in the Intermountain Region, both Forest (Malacosoma disstria) and Western (M.californicum) tent caterpillars were observed. Most of the defoliation occurred on shrubs and sapling-sized aspen and cottonwood, but feeding was so extensive as to be aerially visible in several locations in Idaho, Nevada and Utah.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Fremont County	Yes
ID - Teton County	Yes
NV - Elko County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Iron County	Yes
UT - Salt Lake County	Yes
UT - Weber County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Gypsy Moth** (*Lymantria dispar*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	
Survey Method(s):	
Setting(s):	Not Applicable
Damage No Longer Observed:	True
Acres Affected:	0 - 10
Location / Affected Area:	No observations in the Intermountain Region.

The first gypsy moth outbreak detected in the Intermountain Region occurred in Utah in 1988. Gypsy moth populations were subsequently eradicated. Single male moth catches have periodically occurred in various locations throughout the Region. Since 2009, no male moths have been captured in the Intermountain Region. In 2015, pheromone detection traps will be deployed in the Region at key locations.

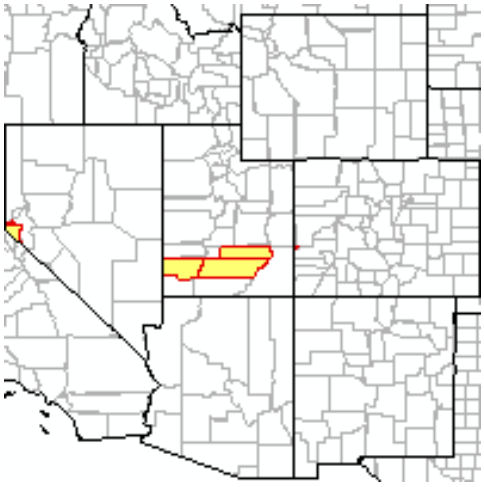
Counties or Equivalents	Causing Damage (Yes/No)

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Heterobasidion Root Disease P-type** (*Heterobasidion irregulare*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Common Or Two-Needle Pinyon, Jeffrey Pine, Ponderosa Pine, Singleleaf Pinyon
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	101 - 1,000
Location / Affected Area:	In small pockets throughout the Intermountain Region in the piñon pine type.

In the Intermountain Region, Heterobasidion irregulare is a disease of limited occurrence. It can be found killing small pockets of piñon pine in a few counties in Colorado, Utah and Nevada. It can also be found in a limited area along the California/Nevada border impacting Jeffrey and ponderosa pine on the Bridgeport Ranger District of the Humboldt-Toiyabe National Forest.

Counties or Equivalents	Causing Damage (Yes/No)
CO - Mesa County	Yes
CO - Montrose County	Yes
NV - Carson City	Yes
NV - Douglas County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Wayne County	Yes

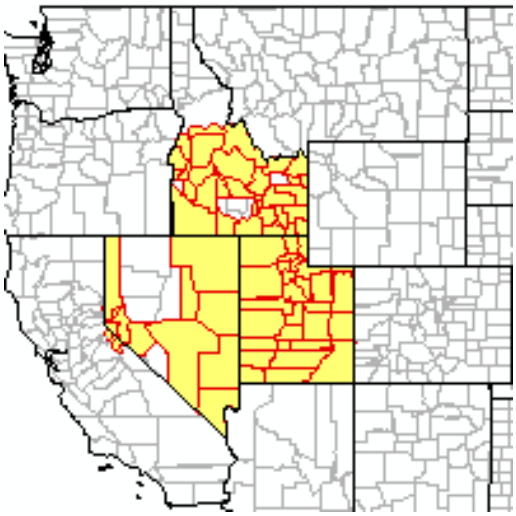


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Heterobasidion Root Disease S-type** (*Heterobasidion occidentale*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	California Red Fir, Douglas-Fir, Engelmann Spruce, Fir Spp., Grand Fir, Subalpine Fir, White Fir
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	10,001 - 100,000
Location / Affected Area:	In host type throughout the Intermountain Region.

Heterobasidion occidentale can be found infecting true fir, spruce, and Douglas-fir throughout the Intermountain Region. As a disease causing agent the full ecological effects of this organism have never been evaluated over long temporal and spatial scales. However, by killing planted or naturally regenerated seedlings and saplings, and heavily infected fir stands, the disease can cause serious but un-quantified impacts. This organism is also a saprophyte and has a vital role in recycling dead trees, stumps, and roots.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - El Dorado County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Placer County	Yes
CA - Sierra County	Yes
CA - Tuolumne County	Yes
CO - Montrose County	Yes
ID - Ada County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Bingham County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes
ID - Payette County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Carson City	Yes



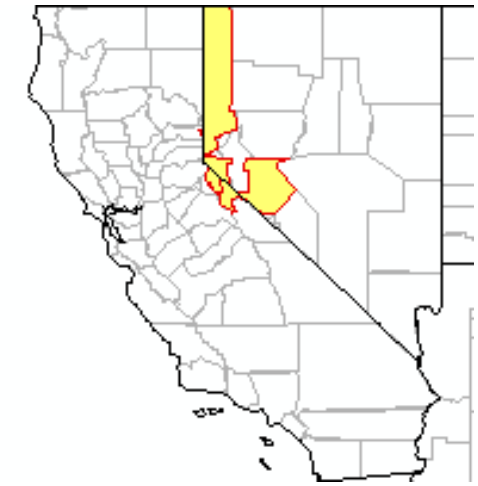
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Eureka County	Yes
NV - Lincoln County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Storey County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Jeffrey Pine Beetle** (*Dendroctonus jeffreyi*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Jeffrey Pine
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	In Jeffrey pine along the California/Nevada border.

In the Intermountain Region, Jeffrey pine beetle-caused mortality remained low. Scattered Jeffrey pine mortality occurred on the Bridgeport and Carson Ranger Districts of the Humboldt-Toiyabe National Forest. Some of the reported tree mortality is caused by California flatheaded borer (Phaenops californica).

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Sierra County	Yes
NV - Douglas County	Yes
NV - Mineral County	Yes
NV - Washoe County	Yes

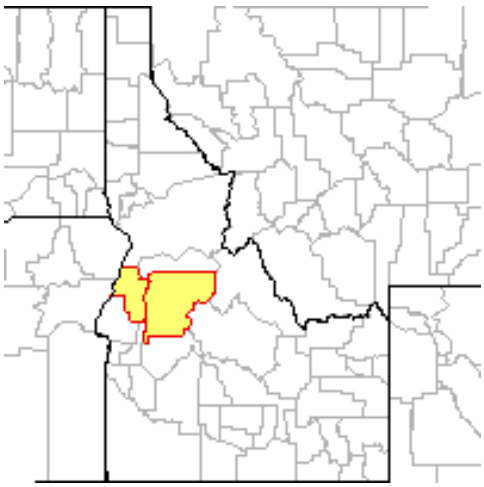


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Larch Needle Cast** (*Meria laricis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Western Larch
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Payette and Boise National Forests in Idaho.

In 2014 on the Boise and Payette National Forests, Intermountain Region, less than 200 acres of western larch was affected by larch needle cast.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Adams County	Yes
ID - Valley County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	Loopers
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	
Survey Method(s):	
Setting(s):	Not Applicable
Damage No Longer Observed:	True
Acres Affected:	0 - 10
Location / Affected Area:	Central Utah.

In Utah, the reported white fir defoliation attributed to western false hemlock looper (Nepytia freemani) in 2012 and 2013 was not reported in 2014.

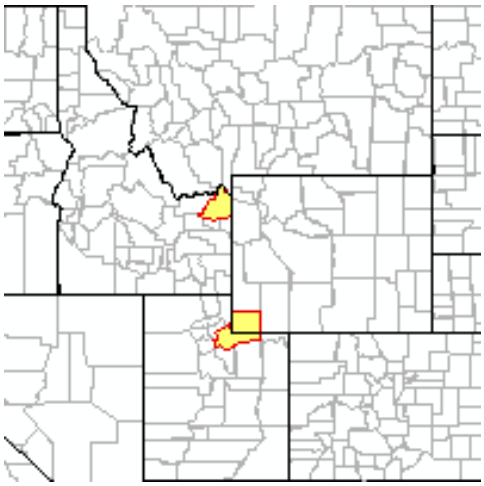
Counties or Equivalents	Causing Damage (Yes/No)

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Lophodermella Needle Cast of Pines** (*Lophodermella spp.*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Lodgepole Pine
Survey Method(s):	Aerial Survey, General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	1,001 - 10,000
Location / Affected Area:	Northern Idaho and northeastern Utah.

In the Intermountain Region, approximately 4,000 acres of Lophodermella needle cast was reported on the Caribou-Targhee and Idaho State lands. In Utah, the Pathologist observed decreased levels of Lophodermella needle cast on the northern Ashley National Forest. Needle casts are host specific and will kill one-year old needles and may cause growth loss.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Fremont County	Yes
UT - Summit County	Yes
WY - Uinta County	Yes



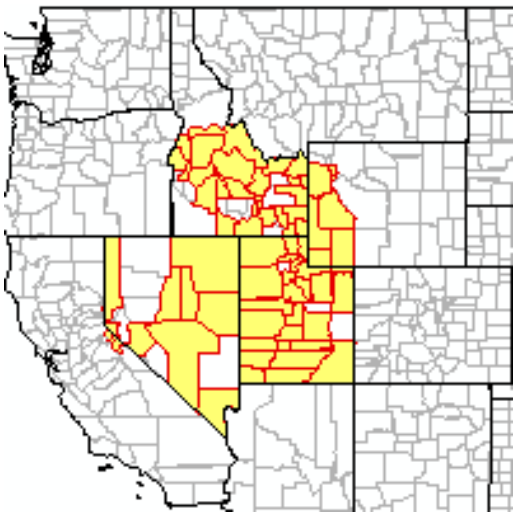
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Mountain Pine Beetle** (*Dendroctonus ponderosae*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Great Basin Bristlecone Pine, Limber Pine, Lodgepole Pine, Ponderosa Pine, Sugar Pine, Western White Pine, Whitebark Pine
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout the pine type in the Intermountain Region

The largest mountain pine beetle (MPB) outbreak on record in the Intermountain Region is rapidly declining. In 2014, approximately 500,000 pine trees were killed over 120,000 acres. This is the second consecutive year that less than a million trees of new mortality were reported in a single year. Most of the preferred, susceptible host trees have been killed where the outbreak has been occurring for many years.

Most of the pine mortality occurred in southern Idaho, western Wyoming and Utah. While pine mortality decreased for the Intermountain Region, in some areas pine mortality increased. Lodgepole pine mortality increased on the Boise and Caribou-Targhee National Forests and Bureau of Reclamation lands in Idaho, and on State of Utah and Utah private lands. Ponderosa pine mortality increased on the Fishlake National Forest in Utah, the Toiyabe National Forest in Nevada, and on Bureau of Land Management land in Idaho. Whitebark pine mortality increased on the Humboldt-Toiyabe National Forest in Nevada, the Bridger-Teton in western Wyoming, and Bureau of Land Management land in Idaho. Drought coupled with warmer temperatures and landscapes composed of susceptible hosts are the significant factors contributing to the tree mortality caused by this bark beetle.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Sierra County	Yes
CO - Montrose County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes



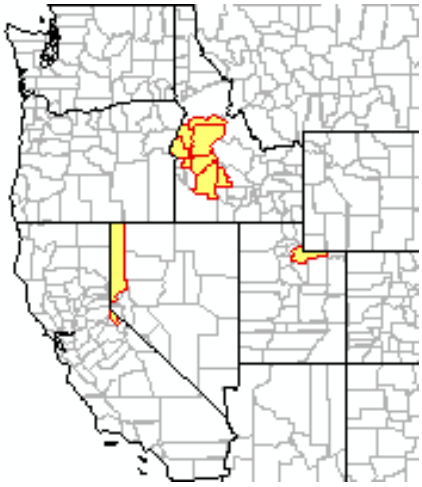
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Eureka County	Yes
NV - Lander County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Sweetwater County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pine Engraver** (*Ips pini*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Jeffrey Pine, Ponderosa Pine
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	In host type throughout the Intermountain Region.

In the Intermountain Region pine engraver-caused tree mortality increased, although some locations had localized outbreaks. Pine engraver-caused mortality was most active in dense ponderosa pine stands. Tree mortality was reported in Utah on the Uinta-Wasatch-Cache National Forest and in southern Idaho on the Boise and Payette National Forests. A few Jeffrey pine were killed on the Humboldt-Toiyabe National Forest in Nevada.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
ID - Adams County	Yes
ID - Boise County	Yes
ID - Camas County	Yes
ID - Elmore County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Washoe County	Yes
UT - Summit County	Yes



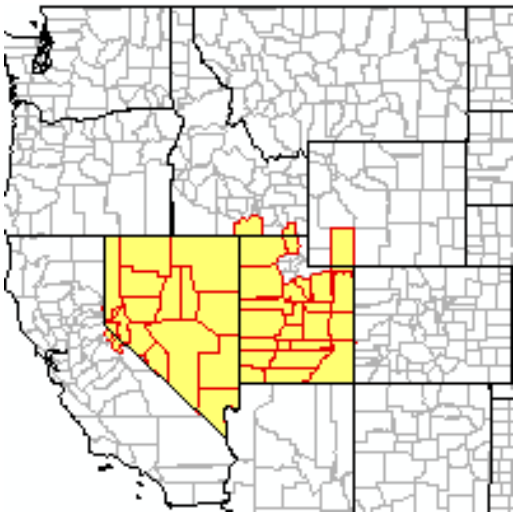
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pinyon Black Stain Root Disease** (*Leptographium wageneri var. wageneri*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	101 - 1,000
Location / Affected Area:	Piñon pine type in the Intermountain Region.

In the Intermountain Region aerial and ground surveys have identified approximately two-dozen black stain root disease-centers in piñon pine stands of significant size. This disease is most prevalent in Utah and Nevada where piñon pine is abundant. However, the disease-infected piñon pines occur on fewer than 1,500 acres in each state. The northern range of piñon pine extends into southern Idaho primarily on Bureau of Land Management lands where approximately 50 acres are infected with black stain root disease.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	No
CA - Mono County	No
CA - Sierra County	No
CO - Mesa County	No
CO - Montrose County	No
ID - Cassia County	No
ID - Franklin County	No
NV - Carson City	No
NV - Churchill County	No
NV - Clark County	No
NV - Douglas County	No
NV - Elko County	No
NV - Esmeralda County	No
NV - Eureka County	No
NV - Humboldt County	No
NV - Lander County	No
NV - Lincoln County	No
NV - Lyon County	No
NV - Mineral County	No
NV - Nye County	No
NV - Pershing County	No
NV - Storey County	No
NV - Washoe County	No
NV - White Pine County	No
UT - Beaver County	No
UT - Box Elder County	No
UT - Cache County	No
UT - Carbon County	No
UT - Daggett County	No
UT - Duchesne County	No
UT - Emery County	No
UT - Garfield County	No
UT - Grand County	No
UT - Iron County	No
UT - Juab County	No
UT - Kane County	No
UT - Millard County	No
UT - Piute County	No
UT - San Juan County	No
UT - Sanpete County	No
UT - Sevier County	No
UT - Tooele County	No
UT - Uintah County	No
UT - Utah County	No
UT - Wasatch County	No
UT - Washington County	No
UT - Wayne County	No
WY - Sweetwater County	No



Forest Pest Event Report - Intermountain Region

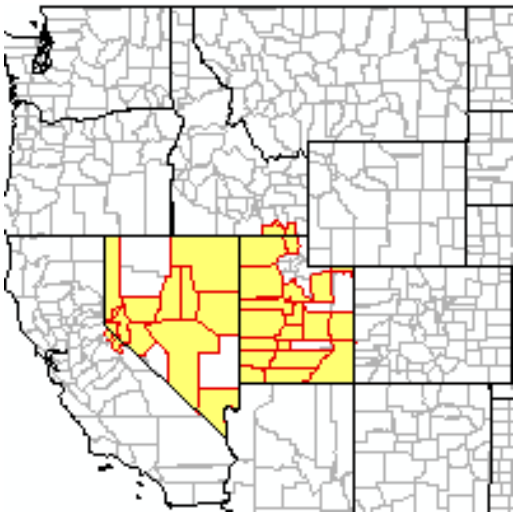
Damage Agent:	**Pinyon Ips** (*Ips confusus*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Common Or Two-Needle Pinyon, Singleleaf Pinyon
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Piñon pine type in the Intermountain Region.

Historically in the Intermountain Region, piñon-juniper woodlands were not annually surveyed. However, an extended drought in the late 1990's caused an increase in pinyon ips populations that resulted in a significant increase in piñon pine mortality over a three year period. Annual aerial surveys were conducted until populations of this insect collapsed. Most of the piñon/juniper woodlands have not been aerially surveyed since 2004.

In 2014, aerially reported pinyon ips-caused pine mortality remained static in Nevada with approximately 20,000 acres; although, entomologists noted increased ips activity. Most of the mapped mortality occurred in Nevada on the Humboldt-Toiyabe National Forest, Bureau of Land Management and private lands due to drought-stressed trees. In Utah, less than 1,000 acres of pine mortality was mapped across all ownerships.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	Yes
CA - Mono County	Yes
CO - Montrose County	Yes
ID - Franklin County	Yes
ID - Oneida County	Yes
NV - Carson City	Yes
NV - Churchill County	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Eureka County	Yes
NV - Lander County	Yes
NV - Lyon County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Storey County	Yes
NV - Washoe County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Kane County	Yes
UT - Millard County	Yes
UT - Piute County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Tooele County	Yes
UT - Utah County	Yes
UT - Washington County	Yes

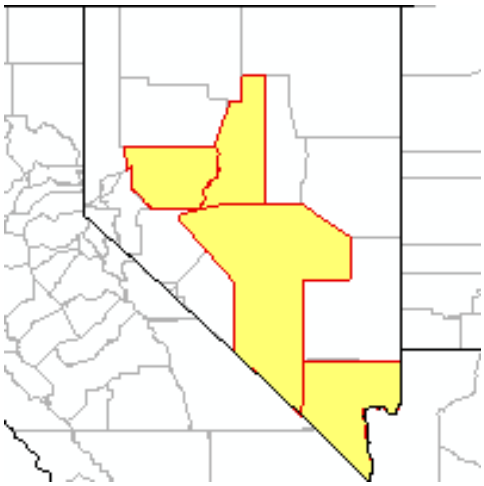


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pinyon Needle Scale** (*Matsucoccus acalyptus*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Singleleaf Pinyon
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	South and central Nevada.

In the Intermountain Region, aerially mapped pinyon needle scale activity affecting piñon pine is decreasing to endemic levels. The defoliation occurred on Humboldt-Toiyabe National Forest and Bureau of Land Management lands in Nevada. The recent outbreak of pinyon scale was first reported in 2008 in eastern Nevada. In 2009 extensive heavy defoliation was recorded during aerial detection surveys in many Nevada locations. In Utah, pinyon-needle scale was not reported in 2014.

Counties or Equivalents	Causing Damage (Yes/No)
NV - Churchill County	Yes
NV - Clark County	Yes
NV - Lander County	Yes
NV - Nye County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Pinyon Sawfly** (*Neodiprion edulicolus*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	
Survey Method(s):	
Setting(s):	Not Applicable
Damage No Longer Observed:	True
Acres Affected:	0 - 10
Location / Affected Area:	Southeastern Nevada

In the Intermountain Region pinyon sawfly-caused defoliation of piñon pine was not aerially mapped in Nevada in 2014. Drought, an abundance of host type, mild winters, low parasite/predator populations or a combination of these factors may lead to a resurgence. The last reported large-scale outbreak of this defoliator occurred in 1965. Since 1965, there have been periodic, small sawfly outbreaks affecting less than 100 acres. Some pine mortality has occurred in the heavily defoliated stands although the cause of mortality may be drought in combination with defoliation and pinyon ips taking advantage of weakened trees.

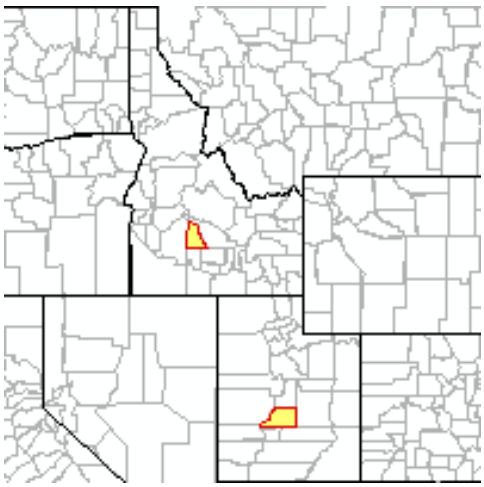
Counties or Equivalents	Causing Damage (Yes/No)

Forest Pest Event Report - Intermountain Region

Damage Agent:	Root/Butt Diseases
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Common Or Two-Needle Pinyon, Douglas-Fir
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Piñon pine in Sevier County, UT and Douglas-fir in Camas County, ID.

In 2014, in the Intermountain Region, aerial observers reported four root disease centers. Three centers were in piñon pine in central Utah. One center was in Douglas-fir in south-central Idaho. None of the disease centers were ground verified.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Camas County	Yes
UT - Sevier County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**Satin Moth** (*Leucoma salicis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Cottonwood And Poplar Spp.
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	California/Nevada border.

In Nevada, Satin Moth-caused aspen defoliation remained static along the California border east of Lake Tahoe. This introduced, exotic species is a voracious feeder on all poplar species as well as willows. A small spot was first reported in the Lake Tahoe Basin in the 1990's. This current infestation has been ground verified. It is anticipated that parasitism by flies and wasps will cause the population to collapse.

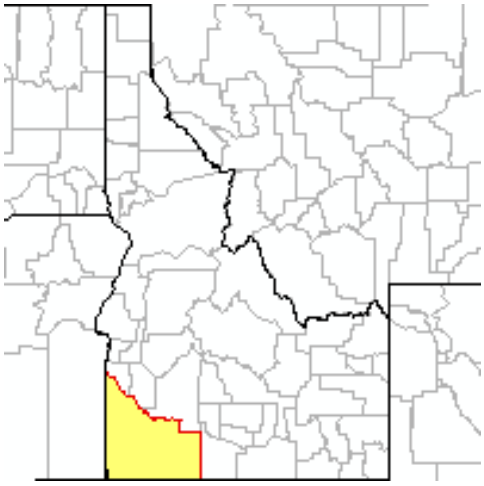
Counties or Equivalents	Causing Damage (Yes/No)
CA - Mono County	Yes
NV - Carson City	Yes
NV - Douglas County	Yes

Forest Pest Event Report - Intermountain Region

Damage Agent:	Scale Insects
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Rocky Mountain Juniper
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Owyhee County, Idaho.

In the Intermountain Region, some scale in juniper was mapped in southern Idaho on Bureau of Land Management lands.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Owyhee County	Yes



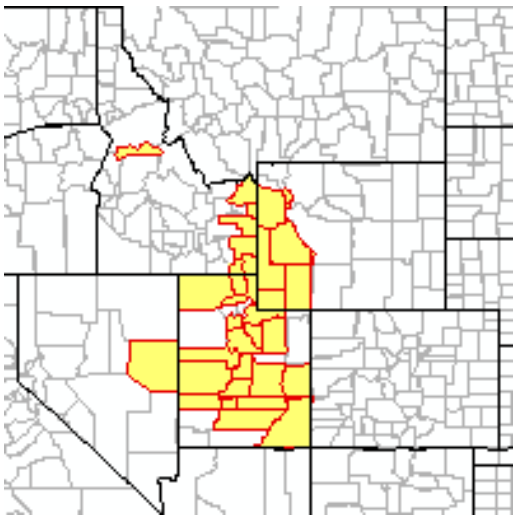
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Spruce Beetle** (*Dendroctonus rufipennis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Blue Spruce, Engelmann Spruce
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	In host type throughout the Intermountain Region.

In 2014, spruce beetle-caused tree mortality doubled in the Intermountain Region. This is the fourth consecutive year of increased spruce mortality. Most of the spruce mortality was mapped in Utah where it was detected at some level on all National Forests and most other ownerships. The Uinta-Wasatch-Cache, Ashley, and Fishlake National Forests have significant outbreaks. Spruce mortality on private lands in Utah nearly doubled. The increase is a result of continued drought and high beetle populations in dense spruce stands. The Bridger-Teton National Forest in western Wyoming experienced the largest single-year increase where spruce mortality increased to over 400,000 trees killed in 2014. Spruce beetle-caused mortality was reported on several forests in southern Idaho. This increasing trend should continue in 2015.

Counties or Equivalents	Causing Damage (Yes/No)

CO - Montrose County	Yes
ID - Bear Lake County	Yes
ID - Bonneville County	Yes
ID - Caribou County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Idaho County	Yes
ID - Teton County	Yes
NV - White Pine County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Juab County	Yes
UT - Millard County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Sweetwater County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes



Forest Pest Event Report - Intermountain Region

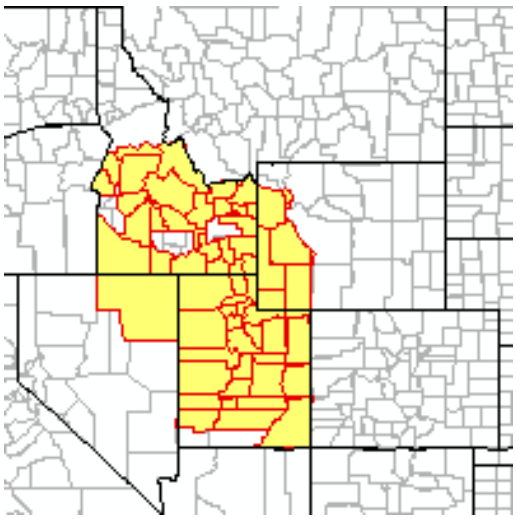
Damage Agent:	Subalpine Fir Mortality Complex
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Subalpine Fir
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	In host type throughout the Intermountain Region.

In the Intermountain Region subalpine fir mortality complex was first described in the late 1980's; and, tree mortality peaked in the mid 1990's during a prolonged drought. There are several fungal pathogens associated with this complex with annosum root disease the most common; however, Cytospora canker, Valsa abietis, is common in south-central Idaho. The primary insects attributed to subalpine fir mortality are: western balsam bark beetle, Dryocoetes confusus, and balsam woolly adelgid, Adelges piceae. Recently, an unidentified root collar-feeding weevil killed a few trees on the Uinta-Wasatch-Cache National Forest. The extent of damage attributed to this weevil has not yet been determined.

In 2014, subalpine fir mortality increased over three-fold. The largest increase in subalpine fir mortality was mapped in Utah where fir mortality increased four-fold across nearly all National Forests and private lands. Mortality also increased dramatically in western Wyoming on the Bridger-Teton National Forest and nearby private lands. The increased mortality is a result of drought and high density stands. Mortality in southern Idaho also increased, predominantly on the Caribou-Targhee National Forest. In Nevada, subalpine fir mortality increased but remains at endemic levels.

Counties or Equivalents	Causing Damage (Yes/No)

CO - Montrose County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Idaho County	Yes
ID - Jefferson County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Owyhee County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Elko County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Cache County	Yes
UT - Carbon County	Yes
UT - Daggett County	Yes
UT - Davis County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Millard County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Rich County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Tooele County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Sweetwater County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes



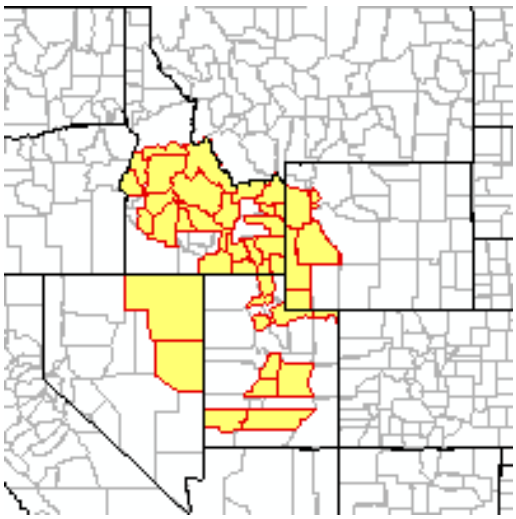
Forest Pest Event Report - Intermountain Region

Damage Agent:	**Tomentosus Root Rot/False Velvet Top Fungus** (*Onnia tomentosa*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Blue Spruce, Engelmann Spruce, Lodgepole Pine
Survey Method(s):	General Observation
Setting(s):	Nursery, Rural Forest, Seed Orchard, Urban
Damage No Longer Observed:	False
Acres Affected:	1,001 - 10,000
Location / Affected Area:	Throughout the Intermountain Region.

Tomentosus root rot (Onnia tomentosa) is another common but un-quantified root disease in the Intermountain Region. Tomentosus infections of tree roots may result in mortality, premature windfall, growth reduction, and butt cull. Tomentosus root disease is found in pockets throughout most of the Intermountain Region primarily as a pathogen of spruce, but lodgepole pine is also a host. In some stands in southern Utah losses of over 20% have been documented. The disease is quite common and damaging in northern Utah, particularly on the Logan Ranger District of the Uinta-Wasatch-Cache National Forest.

Counties or Equivalents	Causing Damage (Yes/No)

ID - Ada County	Yes
ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Oneida County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Elko County	Yes
NV - White Pine County	Yes
UT - Cache County	Yes
UT - Daggett County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Iron County	Yes
UT - Salt Lake County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Weber County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes



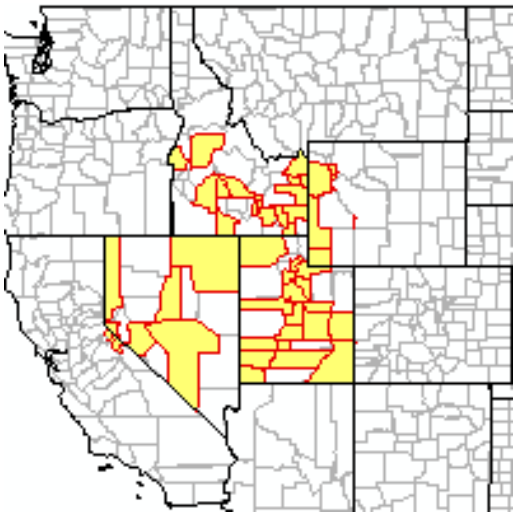
Forest Pest Event Report - Intermountain Region

Damage Agent:	Unknown Defoliator
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Quaking Aspen
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Throughout the Intermountain Region in host type.

In 2014, aspen defoliation recorded by aerial detection survey in the Intermountain Region increased. Most of the defoliation occurred on the Manti-LaSal National Forest in east-central Utah and on the Humboldt-Toiyabe National Forest in western and central Nevada. Defoliation is primarily caused by three agents: large aspen tortrix (Choristoneura conflictana), aspen leaf tier (Sciaphila duplex), and aspen twoleaf tier (Enargia decolor). Marsonnina leaf blight (Marssonina populi) was not detected by aerial survey in 2014, but this disease is observed in aspen stands every year. Forest tent caterpillar (Malacosoma disstria) also plays a significant role in aspen defoliation in some years, but was only actively defoliating aspen in eastern Idaho in 2014.

Counties or Equivalents	Causing Damage (Yes/No)

CA - Alpine County	Yes
CA - Mono County	Yes
CO - Montrose County	Yes
ID - Bannock County	Yes
ID - Blaine County	Yes
ID - Bonneville County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Madison County	Yes
ID - Power County	Yes
ID - Teton County	Yes
ID - Twin Falls County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Lander County	Yes
NV - Mineral County	Yes
NV - Nye County	Yes
NV - Washoe County	Yes
UT - Beaver County	Yes
UT - Box Elder County	Yes
UT - Carbon County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Juab County	Yes
UT - Morgan County	Yes
UT - Piute County	Yes
UT - Salt Lake County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Summit County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Washington County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Teton County	Yes
WY - Uinta County	Yes

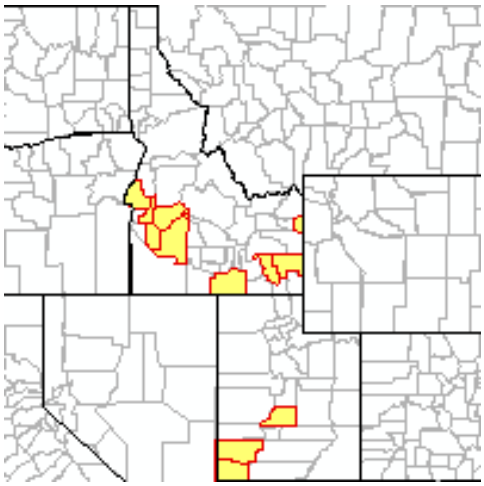


Forest Pest Event Report - Intermountain Region

Damage Agent:	Unknown Defoliator
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Willow Spp.
Survey Method(s):	Aerial Survey, General Observation
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	10,001 - 100,000
Location / Affected Area:	Found in some drainages in Utah and widespread in southwest Idaho.

In 2014, in the Intermountain Region, cottonwood leaf beetle-caused defoliation and skeletonization of willow leaves in southern Idaho was widespread on private and federal lands. Only a portion of the defoliation was recorded during aerial survey.

Counties or Equivalents	Causing Damage (Yes/No)
ID - Ada County	Yes
ID - Bannock County	Yes
ID - Boise County	Yes
ID - Caribou County	Yes
ID - Cassia County	Yes
ID - Elmore County	Yes
ID - Gem County	Yes
ID - Teton County	Yes
ID - Washington County	Yes
UT - Iron County	Yes
UT - Sevier County	Yes
UT - Washington County	Yes

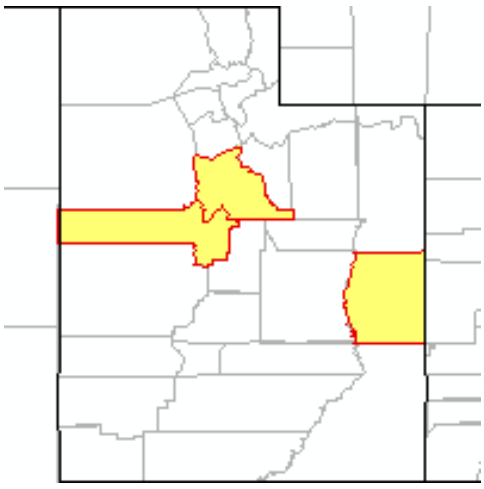


Forest Pest Event Report - Intermountain Region

Damage Agent:	Unknown Defoliator
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Gambel Oak
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Central Utah.

In the Intermountain Region, unknown oak defoliation was mapped in Utah in 2014. Although causal agent is not confirmed, the defoliation is probably caused by fall cankerworm (Alsophila pometaria).

Counties or Equivalents	Causing Damage (Yes/No)
UT - Grand County	Yes
UT - Juab County	Yes
UT - Utah County	Yes

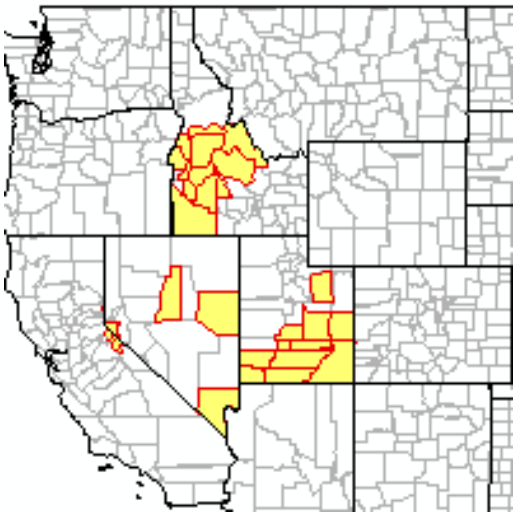


Forest Pest Event Report - Intermountain Region

Damage Agent:	**Western Pine Beetle** (*Dendroctonus brevicomis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Ponderosa Pine
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	In host type throughout the Intermountain Region.

In the Intermountain Region ponderosa pine mortality attributed to western pine beetle (Dendroctonus brevicomis) increased for the second consecutive year. Most of the mortality was mapped in southern Idaho on the Boise National Forest and Idaho private land. Drought conditions and the wildfires of 2012 and 2013 are likely responsible for this beetle population increase and subsequent tree mortality. In central and southern Utah, ponderosa pine mortality attributed to western pine beetle increased. In Nevada, endemic levels of activity were reported. Ponderosa pine is not found in western Wyoming.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Mono County	Yes
CA - Nevada County	Yes
CA - Sierra County	Yes
CO - Montrose County	Yes
ID - Ada County	Yes
ID - Adams County	Yes
ID - Boise County	Yes
ID - Camas County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Owyhee County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
NV - Clark County	Yes
NV - Douglas County	Yes
NV - Lander County	Yes
NV - White Pine County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Kane County	Yes
UT - Piute County	Yes
UT - San Juan County	Yes
UT - Sevier County	Yes
UT - Washington County	Yes
UT - Wayne County	Yes



Forest Pest Event Report - Intermountain Region

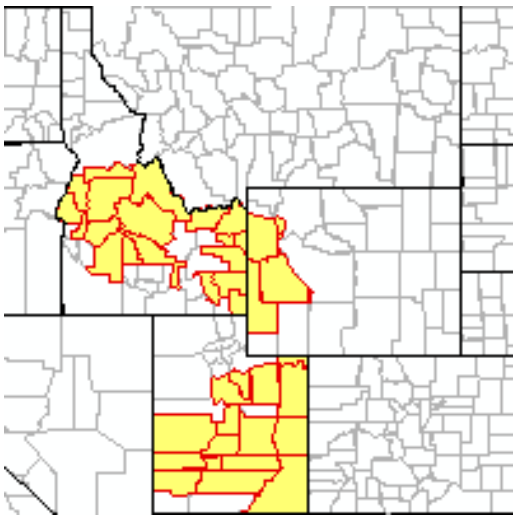
Damage Agent:	**Western Spruce Budworm** (*Choristoneura occidentalis*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Douglas-Fir, Subalpine Fir
Survey Method(s):	Aerial Survey
Setting(s):	Rural Forest
Damage No Longer Observed:	False
Acres Affected:	Unknown
Location / Affected Area:	Idaho, Utah and western Wyoming.

In the Intermountain Region, nearly all ownerships saw an increase in western spruce budworm-caused tree defoliation in 2014. The biggest increase occurred in western Wyoming followed by southern Idaho. However, south-central Idaho has the most area affected. Populations of this insect in Idaho have remained near outbreak levels for ten consecutive years. Aerial surveyors noted the signature was difficult to see because of previous defoliation and smoke from wildfires.

In southern Idaho, acres defoliated by budworm were at outbreak levels on the Boise, Payette and Caribou-Targhee National Forests. The Salmon-Challis National Forest was surveyed too early to capture the full extent of defoliation. Douglas-fir beetle-caused tree mortality is also occurring in some of these heavily defoliated areas, often on the dry, south-facing sites. In Utah, acres affected by western spruce budworm defoliation increased slightly, most damage occurred on the Fishlake National Forest. In western Wyoming, defoliation increased to nearly 20,000 acres. No western spruce budworm was mapped in Nevada.

Counties or Equivalents	Causing Damage (Yes/No)

ID - Adams County	Yes
ID - Bannock County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Madison County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
ID - Washington County	Yes
UT - Beaver County	Yes
UT - Daggett County	Yes
UT - Duchesne County	Yes
UT - Emery County	Yes
UT - Garfield County	Yes
UT - Grand County	Yes
UT - Iron County	Yes
UT - Millard County	Yes
UT - Piute County	Yes
UT - San Juan County	Yes
UT - Sanpete County	Yes
UT - Sevier County	Yes
UT - Uintah County	Yes
UT - Utah County	Yes
UT - Wasatch County	Yes
UT - Wayne County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes



Forest Pest Event Report - Intermountain Region

Damage Agent:	**White Pine Blister Rust** (*Cronartium ribicola*)
Submitter:	Kathleen Matthews
Survey Year:	2014
Host(s):	Limber Pine, Sugar Pine, Western White Pine, Whitebark Pine
Survey Method(s):	General Observation, Ground Survey
Setting(s):	Nursery, Rural Forest, Urban
Damage No Longer Observed:	False
Acres Affected:	100,001 - 1,000,000
Location / Affected Area:	On host type in all states of the Intermountain Region except Utah.

Since its introduction into North America over a century ago, white pine blister rust (WPBR) has spread throughout the range of most western five-needle pines in the Intermountain West. In the Intermountain Region WPBR is most frequently found on whitebark and limber pines. Western white pine and sugar pine, some of which are infected, are found only on the Humboldt-Toiyabe National Forest along the California/Nevada border. WPBR infection in Great Basin and aristata bristlecone pine has not been found despite the high susceptibility of the host to the disease in greenhouse tests. Plots have been established in the Intermountain Region to survey and monitor white pine blister rust spread and intensity on limber, whitebark, Great Basin bristlecone and western white pine. In Utah, the pathogenic fungus has not yet been detected on pine hosts.

Counties or Equivalents	Causing Damage (Yes/No)
CA - Alpine County	Yes
CA - Placer County	Yes
ID - Adams County	Yes
ID - Bear Lake County	Yes
ID - Blaine County	Yes
ID - Boise County	Yes
ID - Bonneville County	Yes
ID - Butte County	Yes
ID - Camas County	Yes
ID - Caribou County	Yes
ID - Clark County	Yes
ID - Custer County	Yes
ID - Elmore County	Yes
ID - Franklin County	Yes
ID - Fremont County	Yes
ID - Gem County	Yes
ID - Idaho County	Yes
ID - Lemhi County	Yes
ID - Teton County	Yes
ID - Valley County	Yes
NV - Carson City	Yes
NV - Douglas County	Yes
NV - Elko County	Yes
NV - Washoe County	Yes
WY - Fremont County	Yes
WY - Lincoln County	Yes
WY - Park County	Yes
WY - Sublette County	Yes
WY - Teton County	Yes